



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
WESTERN REGIONAL OFFICE

436 Dwight Street • Springfield, Massachusetts 01103 • (413) 784-1100

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

IAN A. BOWLES
Secretary

LAURIE BURT
Commissioner

January 30, 2009

Ida McDonnell, CAP
USEPA Region 1
1 Congress Street – Suite 1100
Boston, Massachusetts 02114-2023

Re: Final Operating Permit
Appl. #1-O-07-008; Trans. #W120799

At: Berkshire Power, LLC
36 Moylan Lane
Agawam, MA 01001

Dear Ms. McDonnell:

In accordance with 310 CMR 7.00 – APPENDIX C(6) of the Air Pollution Control Regulations ("the Regulations"), the Department of Environmental Protection ("MassDEP") is forwarding to EPA the attached FINAL Operating Permit for the Berkshire Power, LLC facility located in Agawam, Massachusetts.

Public notice of the Draft Operating Permit was published by the MassDEP in the Union News on October 29, 2008 and in the Environmental Monitor on November 10, 2008, in accordance with the requirements of 310 CMR 7.00: Appendix C. As such, the public comment period ended on December 10, 2008. During that period, no public hearing was requested pursuant to 310 CMR 7.00: Appendix C(6)(f).

On December 10, 2008 the MassDEP forwarded to EPA Region 1, via electronic mail, the Proposed Operating Permit for this facility. EPA did not object or comment on the Proposed Operating Permit, nor did EPA receive a petition to object to the Proposed Operating Permit within the regulatory deadlines. Therefore, the MassDEP is issuing the Final Operating Permit.

The attached Final Operating Permit contains all of the federal and state air pollution control requirements to which the facility is subject, and the terms and conditions for compliance with such applicable requirements.

If you have any questions concerning this FINAL Operating Permit, please contact John Kirzec of the Western Regional Office at (413) 755-2225.

Sincerely,

This final document copy is being provided to you electronically by the
Department of Environmental Protection. A signed copy of this document
is on file at the DEP office listed on the letterhead.

Marc Simpson
Permit Chief
Western Region

JK/jk

cc: Mr. Frank Basile, General Manager
Berkshire Power, LLC
36 Moylan Lane
Agawam, MA 01001

ecc: Peter Czapienski, WERO
Roberta Baker, WERO

Yi Tian, MassDEP, Boston
Karen Regas, MassDEP, Boston



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AIR QUALITY OPERATING PERMIT

Issued by the Massachusetts Department of Environmental Protection ("The MassDEP") pursuant to its authority under M.G.L. c. 111, §142B and §142D, 310 CMR 7.00 et seq., and in accordance with the provisions of 310 CMR 7.00: Appendix C.

ISSUED TO ["the Permittee"]:

Berkshire Power, LLC.
36 Moylan Lane
Agawam, MA 01001

INFORMATION RELIED UPON:

Application No. : 1-O-07-008
Transmittal No. : W120799

FACILITY LOCATION:

Berkshire Power, LLC
36 Moylan Lane
Agawam, MA 01001

FACILITY IDENTIFYING NUMBERS:

AQ ID: 042/0067
FMF FAC NO.: 274425
FMF RO NO.: 299304

NATURE OF BUSINESS:

Combustion Turbine Combined Cycle
Power Generation Facility

STANDARD INDUSTRIAL CODE (SIC):

4911 – Electric power generation

RESPONSIBLE OFFICIAL:

Name: Frank Basile
Title: General Manager

FACILITY CONTACT PERSON:

Name: Frank Basile
Title: General Manager
Phone: (413) 789-0075

This operating permit shall expire on January 30, 2014.

For the Department of Environmental Protection

Michael Gorski
Regional Director
Department of Environmental Protection
Western Regional Office

January 30, 2009

Date

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SPECIAL CONDITIONS FOR OPERATING PERMIT

1. PERMITTED ACTIVITIES

In accordance with the provisions of 310 CMR 7.00: Appendix C and applicable rules and regulations, the Permittee (hereinafter "Berkshire Power") is authorized to operate the air emission units as shown in Table 1 and exempt and insignificant activities as described in 310 CMR 7.00: Appendix C(5)(h) and (i). The units described in Table 1 are subject to the terms and conditions shown in Sections 4, 5, and 6 and to other terms and conditions as specified in this permit. Emissions from the exempt activities shall be included in the total facility emissions for the emission-based portion of the fee calculation described in 310 CMR 4.00 and this permit.

DESCRIPTION OF FACILITY AND OPERATIONS

Berkshire Power is a natural gas fired, combined cycle independent power facility rated at 272 MW net nominal output. The facility, located in Agawam, Massachusetts, consists of an Alstom Power Model GT-24 combustion turbine with a maximum heat input of 2112 MMBtu/hr HHV heat input capacity (178 MW output capacity), an unfired heat recovery steam generator, a nominal 100 MW condensing steam turbine generator, a wet mechanical cooling tower, and ancillary equipment. There are also two natural gas-fired chiller engines each rated at 11.34 MMBtu/hr heat input capacity (HHV) that are available to cool the intake air for additional turbine efficiency and capacity when the ambient temperature is greater than 55°F, a diesel generator (< 3 MMBtu/hr heat input) to provide safe plant shutdown in the event of a total plant loss of power, and a diesel fire pump.

The HRSG houses an 80% destruction efficiency carbon monoxide catalyst followed by the selective catalytic reduction catalyst and ammonia injection grid for control of nitrogen oxides from the combustion turbine and chiller engines. The exhaust gases are released from a 125 foot tall stack with a 216 inch inside diameter equipped with a CEMS system for NO_x, CO, NH₃, and opacity.

Berkshire Power is exempt from the requirements of 40 CFR 64 (Compliance Assurance Monitoring) because the facility utilizes a continuous compliance determination method (NO_x/CO CEMS), as defined in 40 CFR 64.1.

Berkshire Power is a major source of hazardous air pollutants (HAPs), since potential emissions of formaldehyde are greater than 10 tons per year. The federal regulation at 40 CFR 63 Subpart YYYY addresses HAP emissions from stationary combustion turbines. Berkshire Power's CTG however is considered an "existing" source since it was installed before 1/14/2003 and therefore does not have to meet the requirements of this subpart and of Subpart A of 40 CFR Part 63, in accordance with 63.6090(b)(4).

The federal regulation at 40 CFR 63 Subpart ZZZZ addresses Reciprocating Internal Combustion Engines. The two chiller engines fall into the size range and equipment type regulated under Subpart ZZZZ. However, in accordance with 40 CFR 63.6590(b)(3), these existing 4-stroke lean burn engines are not subject to the Subpart and are also not subject to any of its notification requirements.

2. EMISSION UNIT IDENTIFICATION

The following emission units (Table 1) are subject to and regulated by this operating permit:

Table 1			
Emission Unit (EU)	Description of Emission Unit	EU Design Capacity	Pollution Control Device
EU 1	ABB GT24 combustion turbine & Combined cycle unit *	2,112 x 10 ⁶ Btu/hr	selective catalytic reduction for NOx catalytic oxidation for CO & VOC
EU 2	(2) internal combustion chiller engines natural gas fired	11.34 x 10 ⁶ Btu/hr each	selective catalytic reduction for NOx catalytic oxidation for CO & VOC
EU 3	wet mechanical draft cooling tower	66,090 gallons per minute	drift eliminators

* The stack parameters for the combustion turbine/chiller engines are as follows:

Height=125 feet

Inside diameter=18.0 feet

3. IDENTIFICATION OF EXEMPT ACTIVITIES

The following are considered exempt activities in accordance with the criteria contained in 310 CMR 7.00: Appendix C(5)(h):

Table 2	
Description of Current Exempt Activities	Reason
The list of current exempt activities is contained in the Operating Permit application and shall be updated by the Permittee to reflect changes at the facility over the permit term. An up-to-date copy of exempt activities list shall be kept on-site at the facility and a copy shall be submitted to the MassDEP's Regional Office. Emissions from these activities shall be reported on the annual emissions statement pursuant to 310 CMR 7.12.	310 CMR 7.00:Appendix C(5)(h)

4. APPLICABLE REQUIREMENTS

A. EMISSION LIMITS AND RESTRICTIONS – The Permittee is subject to the stack emission limits/restrictions as contained in Table 3 below:

Table 3								
EU #	Fuel or Raw Material	Pollutant	Stack Emission Limit/Standards ⁽¹⁾⁽²⁾				Restrictions (tons per year; rolling 12 month total)	Applicable Regulation and/or Approval No.
			natural gas		distillate oil			
			lb/hr ⁽³⁾	lb/MMBtu ⁽⁴⁾	lb/hr ⁽⁵⁾	lb/MMBtu ⁽⁴⁾		
EU 1 & EU 2 (combined)	natural gas or distillate oil	Sulfur Dioxide	4.0	0.0023	110.3	0.0522	56.	MassDEP Approval # 1-X-95-093 (9/22/1997; amended 7/26/1999 10/8/1999, 2/8/2002, and 6/27/2002) 40 CFR 52.21 40 CFR Part 72 / 75 40 CFR Part 60 Subpart GG 310 CMR 7.00 Appendix A / B 310 CMR 7.28
		Particulate Matter ⁽⁶⁾	17.5	0.0105	98.9	0.0468	106.	
		Nitrogen Oxides	21.0	0.0121	69.2	0.0328	109.	
		See "Special Term & Conditions" in Section 5.						
		Carbon Monoxide	43.4 ⁽⁸⁾	N/A	23.5	0.0112	183.	
		VOC	8.0 ⁽⁹⁾	N/A	40.0	0.0189	47.	
		Formaldehyde	3.7	0.0025	5.3	0.0025	16.8	
		Sulfuric Acid Mist	1.54	0.0010	35.4	0.0168	18.9	
		Nitrogen Oxides	3.5 ppmvd @ 15% O ₂		9.0 ppmvd @ 15% O ₂			
		Ammonia	Ammonia slip ≤10 ppmvd at 15% O ₂				109. ⁽¹⁰⁾	
		Opacity	No greater than 10%					
		Sulfur in fuel	ng: ≤ 0.8 grains/100ft ³		oil: ≤ 0.05% by wt.			
		Carbon Dioxide	See "Special Terms & Conditions" in Section 5.					310 CMR 7.70
EU 3		Particulate Matter					4.6 ⁽⁷⁾	MassDEP Approval # 1-X-95-093 (9/22/1997)

(1) The "lb/hr", "lb/MMBtu", and "ppmvd" emission rates are based on a 1-hour block average.

(2) Emission limits during startup/shutdown as well as at other load points and ambient temperatures are specified in Tables A, B, C, D, E, and F in Section 5: Special Terms & Conditions of this Operating Permit.

(3) Except where noted, hourly emission rates while burning natural gas are presented here based on 100% load and 59°F ambient temperature.

(4) The lb/MMBtu (pound per million Btu) emission limits apply at all load and temperature conditions.

(5) Hourly emission rates while burning oil are based on 100% load and 0°F ambient temperature (worst case emission rate conditions). These emission limits apply to oil use at other load points and at other temperatures.

(6) Particulate matter as measured according to the applicable procedures specified in 40 CFR Part 60 Appendix A, Method 5.

(7) 4.6 tons per year is emitted from cooling tower drift.

(8) "Worst case" based on natural gas firing at 50% load and 59°F.

(9) "Worst case" based on natural gas firing at 75% load and 59°F.

(10) Includes breathing and working losses of the ammonia storage tanks

- B. **COMPLIANCE DEMONSTRATION** – The Permittee is subject to the monitoring, testing, record-keeping, and reporting requirements as contained in Table 4a/4b/4c, 5, and 6a/6b below and 310 CMR 7.00 Appendix C (9) and (10): and applicable requirements as contained in Table 3, unless otherwise specified below.

Table 4a	
Emission Unit	Monitoring/Testing Requirements
EU 1 & EU 2 (combined)	<p>Berkshire Power shall</p> <ol style="list-style-type: none"> 1) In accordance with MassDEP Approval 1-X-95-093 (9/22/97; amended 7/29/1999), calibrate, test, and operate a Data Acquisition System(s) (DAS) and stack CEMs to measure and record flue gas emissions of NO_x, CO, CO₂, O₂, and ammonia. For the monitoring of CO₂, Berkshire Power may use, if they choose, alternative CO₂ monitoring provisions as defined in 40 CFR Part 75.13 and 40 CFR Part 75 Appendix G. 2) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), calibrate, test, and operate a COMS including a DAS to continuously monitor and record the stack opacity. 3) In accordance with MassDEP Approval 1-X-95-093 (9/22/97; amended 7/29/1999), use and maintain its CEMs & COMs system (or the alternative CO₂ monitoring method allowed in provision 1) above) as "direct-compliance" monitors to measure NO_x, CO (and VOC), CO₂, O₂, ammonia, and opacity. "Direct-compliance" monitors generate data that legally documents the compliance status of a source. The MassDEP shall utilize the data generated by the "direct-compliance" monitors for compliance and enforcement purposes. 4) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), ensure that all stack monitors and recording equipment comply with MassDEP approved performance and location specifications, and conform with the EPA monitoring specifications at 40 CFR Part 60.13 & 40 CFR Part 60 Appendices B and F, all applicable portions of 40 CFR Parts 72 and 75, 310 CMR 7.19, and 310 CMR 7.28. 5) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), all periods of excess emissions, even if attributable to an emergency/malfunction or startup/shutdown, shall be quantified and included in the determination of annual emissions and compliance with the annual emission limits stated herein. Any period of excess emission of CO shall count as a period of excess emission of VOC, and the excess emission of VOC shall be accumulated towards the 47 ton per year emission limitation for VOC. 6) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), equip the CEMs and COMS with audible and visible alarms to activate when emissions exceed the limits established herein. 7) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), operate each CEM and COMS at all times except for periods of CEM and COMS calibration checks, zero and span adjustments, and preventive maintenance. 8) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), obtain and record emission data from each CEMs and COMS for at least 75% of the hours per calendar day for 75% of the days per calendar month, and 95% of the hours per calendar quarter that the subject emission unit operates, except for periods of calibration checks, zero and span adjustments, and preventive maintenance. 9) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), receive written approval from the MassDEP for any changes to the quality control and quality assurance program already approved by the MassDEP for the long term operation of the CEMs.

Table 4b	
Emission Unit	Monitoring/Testing Requirements
EU 1 & EU 2 (combined)	<p>Berkshire Power shall</p> <p>10) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997) and the USEPA alternative monitoring schedule approved November 3, 1999, when firing oil operate the NO_x CEMs in lieu of monitoring the water-to-fuel ratio and monitoring the fuel oil nitrogen content.</p> <p>11) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997) and the USEPA custom monitoring schedule approved November 3, 1999, monitor the sulfur content of distillate oil according to the requirements contained therein.</p> <p>12) In accordance with 40 CFR 75, Appendix D, Section 2.3.1.4(e), monitor and record the sulfur content in natural gas at least once per calendar year.</p> <p>13) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), operate continuous monitors and alarm systems to monitor temperatures at the inlets to the control system SCR and CO catalysts.</p> <p>14) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), comply with all applicable testing requirements contained in 40 CFR Parts 72 and 75.</p> <p>15) In accordance with MassDEP Approval 1-X-99-033/034 (10/26/1999), conduct <u>annual stratification testing</u> for NO_x (using USEPA Method 20 or an alternate method approved by the MassDEP) and O₂. The purpose of these tests shall be to document a representative CEM sampling location for NO_x in accordance with the applicable stratification criteria under 40 CFR Part 75.</p> <p>16) In accordance with MassDEP Approval 1-X-99-033/034 (10/26/1999), the requirement to perform an <u>annual stratification test</u> may be modified by the MassDEP, upon request by Berkshire Power, if in the opinion of the MassDEP such testing is no longer needed.</p>

Table 4c	
Emission Unit	Monitoring/Testing Requirements
EU 1 & EU 2 (combined)	<p>Berkshire Power shall</p> <p>17) In accordance with 310 CMR 7.28(11)(a)(1), any person who owns, leases, operates or controls a budget unit that commences operation before January 1, 2002 shall install, operate and successfully complete all applicable certification testing requirements for monitoring heat input, NO_x emission rate and NO_x mass emissions pursuant to the requirements of 40 CFR Part 75 Subpart H by May 1, 2002.</p> <p>18) In accordance with 310 CMR 7.28(11)(a)(4), all monitoring systems are subject to initial performance testing and periodic calibration, accuracy testing and quality assurance/quality control testing as specified in 40 CFR Part 75 Subpart H.</p> <p>19) As required by 310 CMR 7.28(11)(a)(5), during a period when valid data is not being recorded by a monitoring system approved under 310 CMR 7.28, the missing or invalid data must be replaced with default data in accordance with the provisions of 40 CFR 75.70(f). The applicable missing data procedures are specified in 40 CFR Part 75 for NO_x emission rate (in lb/MMBtu), heat input, stack gas volumetric flow rate, oil density, GCV or fuel flow rate.</p> <p>20) In accordance with 310 CMR 7.28(11)(a)(6), NO_x emissions data must be reported to the NO_x Emissions Tracking System (NETS) in accordance with 310 CMR 7.28(13).</p> <p>21) In accordance with 310 CMR 7.28(11)(a)(7), budget units must report data pursuant to the requirements of 310 CMR 7.28(11) for every hour.</p> <p>22) In accordance with 310 CMR 7.28(11)(b), any person who owns, leases, operates or controls a budget unit subject to 310 CMR 7.28 must comply with the notification requirements in 40 CFR 75.61, where applicable.</p>
Facility-Wide	<p>Berkshire Power shall</p> <p>23) In accordance with 310 CMR 7.13 <u>Stack Testing</u>, conduct stack testing, upon written request of the MassDEP, for any air contaminant for which the MassDEP has determined testing is necessary, to ascertain compliance with the MassDEP's regulations or design approval provisos. All such testing shall be conducted in accordance with 310 CMR 7.13 (1) and (2), and in accordance with the applicable procedures specified in 40 CFR 60 Appendix A or other method if approved by the MassDEP and EPA.</p> <p>In accordance with 310 CMR 7.02(8)(g), any emission testing to demonstrate compliance with the allowable particulate emission rate shall be in accordance with the EPA Methods 1-5, as specified in 40 CFR Part 60, Appendix A.</p> <p>In accordance with 310 CMR 7.00 Appendix C(9)(b), any emission testing to demonstrate compliance with the allowable emission limits shall be in accordance with EPA Method 7E for NO_x, EPA Method 10 for CO, and EPA Method 9 for smoke/opacity, as specified in 40 CFR 60, Appendix A.</p> <p>24) Monitor operations such that information may be compiled for the annual preparation of a Source Registration/Emission Statement Form as required by 310 CMR 7.12.</p>

Table 5	
Emission Unit	Record-keeping Requirements
EU 1 & EU 2 (combined)	<p>Berkshire Power shall</p> <ol style="list-style-type: none"> 1) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), maintain for the life of the facility all operating and monitoring records and logs. Berkshire Power shall make available to the MassDEP for inspection upon request the five most recent years' data. 2) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), maintain a file for the Certification of Analysis supplied with each fuel oil delivery. Berkshire Power shall conduct random sampling of deliveries, and shall send these samples to a qualified laboratory for verification of sulfur content. Berkshire Power shall maintain records of natural gas sulfur content annually in accordance with 40 CFR 75, Appendix D Section 2.3.1.4(e). 3) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), maintain on-site permanent records of output from all continuous monitors for flue gas emission, fuel consumption, SCR & CO control system inlet temperatures, and turbine inlet & ambient temperatures, and shall make these records available to the MassDEP on request. 4) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), maintain records documenting compliance with the emission limits (lb/hr, lb/MMBtu, ppmvd, opacity, and tons per year [rolling 12-month total]) specified in Table 3. 5) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), maintain a written log to record each period that distillate oil is fired in the gas turbine. The log shall indicate the date, duration of firing, amount of oil fired, and name of the operator making the entry. 6) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), maintain a log to record problems, upsets or failures associated with the emission control system, CEMs, COMS, or ammonia handling system. 7) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997) and 310 CMR 7.00 Appendix C(10)(b), comply with all applicable recordkeeping requirements contained in 40 CFR 60, 40 CFR 72, 40 CFR 75, and 310 CMR 7.28. 8) In accordance with 310 CMR 7.28(8)(e), ensure that information on the Authorized Account Representative (AAR) Form is kept current. 9) As required by 310 CMR 7.28(12), keep all measurements, data, reports and other information required by 310 CMR 7.28 for five years, or any other period consistent with the budget unit's operating permit
Facility-Wide	<p>Berkshire Power shall</p> <ol style="list-style-type: none"> 10) In accordance with 310 CMR 7.00 Appendix C(10)(b), maintain records of all monitoring data and supporting information on-site for a period of at least five years from the date of the monitoring sample, measurement, report or initial operating permit application. 11) In accordance with 310 CMR 7.12, maintain for 5 years the records required to determine the nature and amounts of emissions from the facility.

Table 6a	
Emission Unit	Reporting Requirements ⁽¹⁾
EU 1 & EU 2 (combined)	<p>Berkshire Power shall</p> <ol style="list-style-type: none"> 1) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), submit a report monthly to the Western Regional Office of the Department of Environmental Protection. The report will be submitted by the 15th of the following month and will minimally contain the following information. <ol style="list-style-type: none"> a. The monthly reports from the facility CEMs and COMS containing summary emission data in a format acceptable to the MassDEP. b. For each period of excess emissions or excursions from allowable operating conditions, list the duration, cause (including whether it is attributable to a malfunction⁽²⁾ or emergency⁽²⁾), the response taken, and the amount of excess emissions. Periods of excess emissions shall include periods of startups/shutdowns, malfunction, emergency, and upsets or failures associated with the emission control system or CEMs or COMS. c. Each period during which there was any firing of distillate oil. The report will include the date of oil firing, the amount of oil fired, the reasons and duration of firing. This report will summarize year-to-date the number of hours of firing distillate oil and the total amount of distillate oil burned. d. A tabulation of periods of operation (dispatch). 2) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997) and the applicable portions of 40 CFR Parts 60, 72, 75 and 310 CMR 7.28, comply with all applicable reporting requirements contained therein, including the submission of quarterly electronic data reports to the USEPA. 3) As required by 310 CMR 7.28(13)(a)(1), for units commencing operation prior to May 1, 2002, the AAR must submit quarterly reports for each calendar quarter beginning with: the earlier of the calendar quarter that includes the date of initial certification or, if the certification tests are not completed by May 1, 2002, the partial calendar quarter from May 1, 2002 through June 30, 2002. Data shall be recorded and reported from the earlier of the date and hour corresponding to the date and hour of certification or the first hour on May 1, 2002. 4) In accordance with 310 CMR 7.28(13)(b), the AAR for each budget unit using CEMS must submit to the Administrator all emissions and operating information for each calendar quarter of each year in accordance with the standards specified in 40 CFR Part 75 Subpart H and 40 CFR 75.64.

(1) The annual Source Registration/Emission Statement report shall be submitted to the MassDEP office specified in the instructions. **All other reports, including both 6-month summary reports, are to be submitted to the Western Regional Office of the Department of Environmental Protection.**

(2) "Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of this source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.

"Malfunction" means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

Table 6b

Emission Unit	Reporting Requirements ⁽¹⁾
EU 1 & EU 2 (combined)	<p>Berkshire Power shall</p> <p>5) In accordance with 310 CMR 7.28(13)(c)(1), for units subject to an Acid Rain Emissions limitation, quarterly reports shall include all of the data and information required in 40 CFR Part 75 Subpart H for each NOx Budget unit (or group of units using a common stack) as well as information required in 40 CFR Part 75 Subpart G.</p> <p>6) In accordance with the requirements of 310 CMR 7.28(13), NOx emissions data must be reported pursuant to the requirements of 310 CMR 7.28(11)(a)(6), (a)(7) and (b). The deadline to submit data to EPA is 30 days after the end of each calendar quarter.</p> <p>7) In accordance with 310 CMR 7.28(13)(e), by October 31 of each year, any person who owns, leases, operates or controls a new or existing budget unit must report to the Department each facility's metered net electric and useful steam output for that year's control period. Net electric output must be reported in megawatt-hours, and steam output in MMBtu. If data for steam output is not available, the person may report heat input providing useful steam output as a surrogate for steam output.</p> <p>8) In accordance with 310 CMR 7.28(15), for each control period, the AAR for the budget unit shall submit by November 30 of each year, an annual compliance certification report to the Department and the NATS Administrator. The compliance certification shall contain, at a minimum, the items listed in 310 CMR 7.28(15)(c)1 through 8.</p> <p>9) Notification of QA testing is required for Relative Accuracy Test Audits (RATAs) and Appendix E/LME (Low Mass Emission) unit tests. Notification must be made at least 21 days prior to the scheduled test date to the EPA as required by 40 CFR 75.61, to MassDEP Headquarters, Bureau of Waste Prevention, Division of Planning and Evaluation, and to the MassDEP Regional office, Attn: BWP Permit Chief. If tests must be rescheduled, 24 hours notice must be given, as specified in 40 CFR 75.61(a)(5).</p> <p>10) A previously approved RATA protocol may be referenced at the time of test notification provided that the referenced protocol was completed in accordance with current 40 CFR Part 75 procedures, addresses all previous MassDEP protocol comments to the satisfaction of the MassDEP, and none of the information has changed. If a revised protocol must be submitted, it must be submitted at least 21 days prior to the scheduled test date.</p> <p>11) A hardcopy of the QA RATA or Appendix E/LME test results must be submitted to both the MassDEP Headquarters and MassDEP Regional offices within 45 days of completion of tests. The electronic results must be submitted in the quarterly electronic data report (EDR).</p> <p>12) Results from QA daily Calibrations for NOx and O₂, quarterly Linearity checks for NOx and O₂, and Appendix D Fuel Flowmeter tests must be reported electronically in the EDR submittal for the quarter in which the testing occurs.</p>

- (1) The annual Source Registration/Emission Statement report shall be submitted to the MassDEP office specified in the instructions. **All other reports, including both 6-month summary reports, are to be submitted to the Western Regional Office of the Department of Environmental Protection.**

Table 6c	
Emission Unit	Reporting Requirements⁽¹⁾
Facility-Wide	<p>Berkshire Power shall</p> <p>13) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), notify the MassDEP immediately by telephone and within 3 working days, in writing, following the release or the threat of a release of ammonia, and/or upsets or malfunctions to the ammonia handling or delivery systems. Berkshire Power must comply with all notification procedures required under M.G.L. c. 21 E - Spill Notification Regulations.</p> <p>14) In accordance with 310 CMR 7.12, submit a Source Registration/Emission Statement form to the MassDEP on an annual basis.</p> <p>15) In accordance with 310 CMR 7.00 Appendix C(10)(c), submit to the MassDEP two compliance summaries, one by January 30 for the time period July – December of the previous calendar year, and the other by July 30 for the time period January – June of the current calendar year. (See Provision 10 in “GENERAL CONDITIONS FOR OPERATING PERMIT”)</p> <p>16) In accordance with 310 CMR 7.13(1)(d), submit to the MassDEP any stack test results for any air contaminant obtained from stack testing required by the MassDEP within such time as agreed to in the approved test protocol.</p> <p>17) In accordance with 310 CMR 7.00 Appendix C(5)(b)9., submit annually a certification that the facility is maintaining the required records to assure the facility is in compliance with the applicable requirements designated in this permit. (See Provision 10 in “GENERAL CONDITIONS FOR OPERATING PERMIT”)</p> <p>18) In accordance with 310 CMR 7.00 Appendix C(10)(a), submit to the MassDEP any record relevant to this operating permit or to the emissions of any air contaminant from the facility within 30 days of the request by the MassDEP or EPA.</p> <p>19) In accordance with 310 CMR 7.00 Appendix C(10)(f), the Permittee shall report to the MassDEP's Regional Bureau of Waste Prevention all instances of deviations from permit requirements. (See Provision 25 in “GENERAL CONDITIONS FOR OPERATING PERMIT”).</p>

- (1)** The annual Source Registration/Emission Statement report shall be submitted to the MassDEP office specified in the instructions. ***All other reports, including both 6-month summary reports, are to be submitted to the Western Regional Office of the Department of Environmental Protection.***

- C. GENERAL APPLICABLE REQUIREMENTS – The Permittee shall comply with all general applicable requirements contained in 310 CMR 7.00 et. seq. and 310 CMR 8.00 et. seq., when subject.
- D. REQUIREMENTS NOT CURRENTLY APPLICABLE –The Permittee is currently not subject to the following requirements:

Table 7	
Regulation	Reason
310 CMR 7.16: Reduction of Single Occupant Commuter Vehicle Use	Facility employs fewer than 250 people.
40 CFR 63 Subpart T: National Emission Standards for Halogenated Solvent Cleaning	Not applicable
310 CMR 7.25: Consumer and Commercial Products	Not applicable
42 U. S. C. 7401 § 112(r): Prevention of Accidental Releases	Facility does not store, use or process any of the listed compounds in quantities greater than thresholds.
40 CFR Part 64: Compliance Assurance Monitoring	Facility utilizes a continuous compliance determination method (NOx/CO CEMS), as defined in 40 CFR 64.1, and is therefore exempt from 40 CFR 64.
310 CMR 7.27	Not applicable; superseded by 310 CMR 7.28

5. SPECIAL TERMS AND CONDITIONS

The Permittee is subject to the following special provisions that are not contained in Table 3, 4, 5, and 6:

Table 8a	
Emission Unit	Special Terms & Conditions
EU 1 & EU 2 (combined)	<p>Berkshire Power shall</p> <ol style="list-style-type: none"> 1) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), not burn oil for more than 720 hours per year, based on a rolling 12-month total. Note: Berkshire Power is advised to consult with the MassDEP about possible permitting requirements before making any modifications at the facility related to burning oil in the combustion turbine 2) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), not burn distillate oil during the time period May 1 through September 30 inclusive of any calendar year, except in the event of a power supply emergency. "Power supply emergency" is defined as when Berkshire Power has been notified by the fuel supplier that Berkshire Power cannot take natural gas and also been notified that an electrical supply emergency exists and all available generation must be put on-line. 3) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), ensure that the SCR control equipment for the gas turbine is operational whenever the turbine is operated at 50% power or greater. 4) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), allow the gas turbine to operate at less than 50% power only during start-ups and shutdowns. Operation at these loads is limited to no more than 180 minutes duration for each startup or shutdown. 5) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), maintain on-site for the CEMs and COMs equipment, an adequate supply of spare parts to maintain the on-line availability and data capture requirements contained herein. 6) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), determine continuous compliance with the VOC emission limits (1 hour block average and annual) contained herein by monitoring CO emissions with the CO CEM. If the gas turbine is operating in a condition of startup, the VOC emissions shall be considered as occurring at the startup rate determined in the initial compliance stack test. If the gas turbine is operating at 50% load or greater, and if CO emissions are below the CO emission limit at the given gas turbine operating conditions, the VOC emissions shall be considered as occurring at the emission limit contained in MassDEP Approval 1-X-95-093 (9/22/1997). If the gas turbine is operating at 50% load or greater, and if CO emissions are above the CO emission limit at the given gas turbine operating conditions, the VOC emissions shall be considered as occurring at a rate determined by the equation $VOC_{actual} = VOC_{limit} \times (CO_{actual} / CO_{limit})$ 7) The owner/operator of Berkshire Power is subject to and shall comply with the Massachusetts Clean Air Interstate Rule (CAIR), 310 CMR 7.32. [STATE ONLY]

Table 8b

Emission Unit	Special Terms & Conditions
EU 1 & EU 2 (combined)	<p>Berkshire Power shall</p> <p>8) EU 1 is subject to the requirements of NO_x Allowance Program, 310 CMR 7.28. The Department issued an Emission Control Plan (ECP) approval for this facility on March 5, 2002.</p> <p>9) NO_x Allowance use and transfer must comply with 310 CMR 7.28(10).</p> <p>10) In accordance with 310 CMR 7.28(14), each year by November 30, for each budget unit, the total number of banked or current year allowances in its compliance or overdraft account must equal or exceed the NO_x emissions from the budget unit in the current control period.</p> <p>11) Each budget unit shall meter electric and/or steam output in accordance with the approved monitoring methodology contained in Table II and Table III of the ECP Approval # 1-E-01-059.</p> <p>a. In the case where billing meters are used to determine output, no QA/QC activities beyond those already performed are required. To qualify as a billing meter, the measurement device must be used to measure electric or thermal output for commercial billing under a contract. The facility selling the electric or thermal output must have different owners from the owners of the party purchasing the electric or thermal output. Any electric or thermal output values that the facility reports must be the same as the values used in billing for the output.</p> <p>b. In the case where non-billing meters are used to determine output, if the facility decides to adopt a system approach to accuracy then a system accuracy of 10.0% must be achieved. If testing an output measurement system shows that the output readings are not accurate to 10.0% or less, then the measurement equipment must be retested or replaced, and meet that requirement. If the facility decides to adopt a component approach to accuracy, then a component accuracy of 3.0% must be achieved. If testing a piece of output measurement equipment shows that the output readings are not accurate to 3.0% or less of the full scale, then the measurement equipment must be retested or replaced, and meet that requirement. When a non-billing system fails to meet the 10% or 3% requirement, data should be considered invalid, prospectively, for purposes of determining allocations. Data remain invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test. The invalid data must be omitted and either zero or an output value that is likely to be lower than a measured value must be reported.</p> <p>c. Output measurement equipment must be tested for accuracy or recalibrated at least once every two years, in accordance with applicable consensus or NIST traceable standards, unless a standard allows for less frequent calibrations or accuracy tests.</p> <p>12) EU1 is subject to the requirements of Phase II of the Federal Acid Rain Program as defined by EPA in 40 CFR Part 72. Pursuant to 40 CFR Part 72.71, 40 CFR Part 72.73, and 310 CMR 7.00: Appendix C(3)(n), the MassDEP is the permitting authority for Phase II Acid Rain Permits. The MassDEP issued the initial Phase II Acid Rain Permit for Berkshire Power on April 12, 2000. The MassDEP is incorporating the requirements of the Phase II Acid Rain Permit into this Operating Permit. The Phase II Acid Rain requirements will renew in the Operating Permit.</p> <p>13) Within 60 days of the end of each calendar year, Berkshire Power shall hold in its SO₂ allowance account at least one allowance for each ton of SO₂ emitted during the previous year. An allowance is a limited authorization to emit SO₂ in accordance with the Acid Rain Program.</p>

Table 8c

Table 8c									
Emission Unit	Special Terms & Conditions								
EU 1 & EU 2 (combined)	14) If Berkshire Power has excess emissions in any calendar year, it shall submit a proposed offset plan as required under 40 CFR Part 77. In addition, the Permittee shall pay any penalties specified in 40 CFR Part 77 and comply with the terms of an approved offset plan.								
	15) In accordance with 40 CFR Part 73, the Permittee's designated representative may buy, sell, trade, or transfer allowances between EU accounts at any time, except between 60 days of the end of the calendar year and the completion of the annual SO ₂ allowance reconciliation for the preceding year(s).								
	16) The yearly allowance allocations (tons per year) as identified in 40 CFR Part 73, Tables 2, 3, or 4 (as amended) are identified below:								
	2005	2006	2007	2008	2009	2010	2011	2012	2013
	0	0	0	0	0	0	0	0	0
EU 3	Berkshire Power shall 17) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), ensure that the facility's cooling tower(s) use no chromium-based water treatment chemicals, in accordance with 40 CFR Part 63 Subpart Q.								
Facility-Wide	Berkshire Power shall 18) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), at all times keep enough of the ball-plastic baffles within the containment area around the ammonium hydroxide storage tank to provide 91% surface coverage of any spilled ammonium hydroxide. The balls must be free of ice and other restrictions that would inhibit their floatation. 19) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), maintain in the facility control room portable ammonia detectors (e.g. draeger tubes) for use during a spill or atypical atmospheric release. 20) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), properly train all personnel to operate the facility and control equipment in accordance with vendor specifications. All persons responsible for the operation of the ammonia handling and SCR control systems shall sign a statement affirming that they have read and understand the approved standard operating and standard maintenance procedures. This training shall be updated at least once annually. 21) In accordance with MassDEP Approval 1-X-99-034 (10/26/1999), ensure that the concentration of the aqueous ammonia solution used in the SCR control system is ≤ 19%. 22) Berkshire Power is subject to, and has stated in their operating permit application that they are in compliance with the requirements of 40 CFR 82: Protection of Stratospheric Ozone. These requirements are applicable to this facility and the United States Environmental Protection Agency enforces these requirements. 23) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), store the standard operating and maintenance procedures for the ammonia handling system in a convenient location (control room/technical library) and make them readily available to all employees. 24) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), comply with all provisions of 40 CFR Parts 72 and 75 that are applicable to this facility. 25) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997), not exceed the predicted noise impacts specified in TABLE F . [STATE ONLY]								

Table 8d

Emission Unit	Special Terms & Conditions
Facility-Wide	<p>Berkshire Power shall</p> <p>26) In accordance with EPA correspondence dated 2/11/2002, employ alternative NO_x continuous emissions monitor calibration and quality assurance/quality control provisions as follows:</p> <ul style="list-style-type: none"> a. For the low monitoring range (0-10 ppm) NO_x monitor, <ul style="list-style-type: none"> i. Berkshire Power may calibrate such that the drift is no more than 5% of span (0.5 ppm). ii. Berkshire Power may perform the 7-day drift test on 7 consecutive unit operating days rather than on seven consecutive calendar days. This item applies to all emissions monitors at the facility. iii. Berkshire Power may use an alternate relative accuracy requirement of 0.5 ppmvd of NO_x, corrected to 15% O₂. For lb/MMBtu emission limits, Berkshire Power may use an alternative relative accuracy of 0.002 lb/MMBtu. For lb/hr emission limits, Berkshire Power may use a relative accuracy equal to the following: $\text{lb/hr relative accuracy} = 0.002 \text{ lb/MMBtu} * A_{\text{MMBtu/hr}}$ Where A_{MMBtu/hr} = the arithmetic average MMBtu/hr determined by the DAHS over the course of the RATA testing, for every hour during which a RATA run was performed. iv. Berkshire Power may substitute the requirements of the quarterly linearity test, required under 40 CFR Part 75, in lieu of the requirement to perform quarterly cylinder gas audits as specified in 40 CFR Part 60. b. Berkshire Power may skip a cylinder gas audit (CGA) for CO and NH₃ in any quarter during which the unit is operated less than 168 hours, except that a CGA must be done for each pollutant (CO and NH₃) at least once every four quarters regardless of hours of operation. c. Berkshire Power is approved to use the following data validation methods: <ul style="list-style-type: none"> i. Berkshire Power shall perform CEMS data validation and data reduction in accordance with 40 CFR Section 75.10(d)(1) procedures for the purposes of showing compliance with the 40 CFR Part 60, Subpart GG NO_x standards and the PSD permit CO and NH₃ standards, except that no data substitution shall be permitted. ii. Berkshire Power shall apply the O₂ diluent cap in accordance with 40 CFR Part 75, Appendix F, Section 3, for determination of lb/MMBtu and ppmvd (@ 15% O₂) emission rates. iii. Berkshire Power shall designate an hour in which fuel is fired for any period as an "operating hour" in accordance with 40 CFR Section 72.2. <p>27) In accordance with EPA correspondence dated 3/31/2006, demonstrate compliance with 40 CFR Part 60, Subpart GG daily calibration requirements by conducting NO_x and O₂ daily calibrations according to the provisions of 40 CFR Part 75, Appendix B, Section 2.1, provided that:</p> <ul style="list-style-type: none"> a. A calibration error greater than two times the Performance Specification would initiate an out-of-control condition and prospective data invalidation until a successful calibration is complete. b. The applicable calibration Performance Specifications for the NO_x analyzer high and low scale ranges are 2.5 percent of span, and 0.5 ppm, respectively. c. Per 40 CFR Part 75, Appendix B, Berkshire Power's low range NO_x monitor will be considered out of control when the difference between the monitor response and the reference value is 1.0 ppm or more. d. Calibrations must be conducted while the unit is operating (unless an online demonstration is made under 40 CFR Part 75, Appendix B, Section 2.1.1.1 or an offline demonstration is made under 40 CFR Part 75, Appendix B, Section 2.1.1.2). e. A calibration must be conducted once every 26 clock hours when the unit is operating; or within 8 hours of a start-up (assuming the analyzer system was in control at the last shutdown).

Table 8e	
Emission Unit	Special Terms & Conditions
EU 1 EU 2 EU 3	Berkshire Power shall 28) In accordance with MassDEP Approval 1-X-95-093 (9/22/1997; amended 2/8/2002 and 6/26/2002), adhere to the emission limits specified in Tables A, B, C, D, E, and F following:

Table A
Startup and Shutdown Limits for NO_x, CO, & NH₃

Pollutant	Emission Limit
Nitrogen Oxides (NO_x)	1.0 lb/MMBtu Startup: Averaged over the first 60 minutes of combustion turbine operation, and for each 1-hour block thereafter over the actual start-up time. Shutdown: Averaged over the last 60 minutes of combustion turbine operation before going off-line.
Carbon Monoxide (CO)	1.0 lb/MMBtu Startup: Averaged over the first 60 minutes of combustion turbine operation, and for each 1-hour block thereafter over the actual start-up time. Shutdown: Averaged over the last 60 minutes of combustion turbine operation before going off-line.
Ammonia (slip) (NH₃)	≤ 10 ppmvd at 15% O₂ Startup: Averaged over the actual startup time. Shutdown: Averaged over the last 60 minutes of combustion turbine operation before going off-line.
(1) Emission limits for pollutants other than NO _x , CO, & NH ₃ during startup / shutdown are defined by the 'normal operation' limits specified in the MassDEP Approval 1-X-95-093 (9/22/1997)	

Definitions:

Startup The period of time ≤180 minutes after a fire is established following a period when the unit is off-line, when the turbine is operating at or below 50% power output. Once 50% power output is achieved, or once 180 minutes have elapsed, the period of startup is considered complete.

Shutdown The period of time lasting ≤60 minutes prior to the unit going off-line, when the turbine is operating at or below 50% power output.

Table B – Natural Gas & 100% Load ⁽¹⁾⁽²⁾

Turbine Emission Limits (pounds per hour)			
EU 1	0°F Turbine Inlet	55°F Turbine Inlet	72°F Turbine Inlet
SO ₂	4.4	4.0	4.0
PM	17.6	17.4	17.4
NO _x	23.6	20.3	18.9
CO	16.3	14.3	11.7
VOC	7.3	6.3	6.2
Chiller Engine Emission Limits (pounds per hour)			
EU 2	0°F — 55°F	59°F Ambient	90°F — 104°F Ambient
SO ₂	0.0	0.0	0.0
PM	0.0	0.1	0.9
NO _x	0.0	0.7	1.4
CO	0.0	0.4	2.2
VOC	0.0	0.3	3.9
Stack Emission Limits (pounds per hour)			
EU 1 & 2 (combined)	0°F Ambient	59°F Ambient	104°F Ambient
SO ₂	4.4	4.0	4.0
PM	17.6	17.5	18.3
NO _x	23.6	21.0	20.3
CO	16.3	14.7	13.9
VOC	7.3	6.6	10.1
<p>(1) Stack emission limits are the sum of turbine emission limits plus chiller engine emission limits, when the chiller engines are operating. Berkshire Power may operate the chiller engines at 100% turbine load burning natural gas, and at ambient temperatures ≥55°F but may optionally choose not to operate them at any time.</p> <p>Berkshire Power may operate the chiller engines at other times (turbine loads < 100% while firing natural gas, ambient temperatures < 55° F, and/or oil firing) provided that Berkshire Power conducts MassDEP approved emission tests and adequately documents to the MassDEP how compliance with the stack emission limits contained herein will be maintained, or in the case of VOC emissions, how compliance with the chiller engine emission limits and the 47 ton per year emission limitation contained herein will be maintained.</p> <p>(2) The stack emission limits at intermediate temperatures is determined by linearly interpolating between temperature points for the turbine and the chiller engines separately, and then summing the results.</p> <p>The chiller engines are sized to operate at full load at ambient temperatures ≥90° F. Linear interpolation of emissions for the chiller engines applies from 55°F to <90°F. At ≥90°F, the emissions from the chiller engines are at the full load values.</p>			

Table C – Natural Gas & Intermediate Loads⁽¹⁾

EU 1 & 2 (combined)	Stack Emission Limits (pounds per hour)			
	Pollutant	0°F Ambient	59°F Ambient	104°F Ambient
75% load Natural Gas	SO ₂	3.5	3.2	2.9
	PM	14.1	13.9	13.7
	NO _x	18.7	16.6	14.5
	CO	32.6	28.8	25.0
	VOC	9.0	8.0	7.0
50% load Natural Gas	SO ₂	2.7	2.4	2.2
	PM	10.6	10.4	10.3
	NO _x	14.0	12.6	11.0
	CO	48.8	43.4	38.2
	VOC	7.0	6.0	5.0
(1) The emission limit at intermediate temps. & loads is determined by linearly interpolating between temperature & load points.				

Table D – Distillate Oil & 100% Load ⁽²⁾

Stack Emission Limits (pounds per hour)			
EU 1 & 2 (combined)	0°F Ambient	59°F Ambient	104°F Ambient
SO ₂	110.3	110.3	110.3
PM	98.9	98.9	98.9
NO _x	69.2	69.2	69.2
CO	23.5	23.5	23.5
VOC	40.0	40.0	40.0
(2) Emissions while burning distillate oil will be assumed to be at 100% load and 0°F (worst case) at all times.			

Table E – Formaldehyde

Stack Emission Limits (pounds per hour)											
Emission Limit		Nat. Gas 100% load			Nat. Gas 75% load			Nat. Gas 50% load			Oil 100% load
		Ambient Temp. (°F)			Ambient Temp. (°F)			Ambient Temp. (°F)			Ambient Temp. (°F)
		0	59	104	0	59	104	0	59	104	0
EU 1 – Turbine (lb/hr)		4.0	3.5	3.4	3.1	2.8	2.4	2.1	1.9	1.7	5.3
EU 2 – Chiller engine (lb/hr)		0.0	0.2	1.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Stack Emission Limits EU 1 & 2	lb/hr	4.0	3.7	4.4	3.1	2.8	2.4	2.1	1.9	1.7	5.3
	lb/MMBtu	0.0025			0.0020			0.0018			0.0025

Noise Receptors	Nighttime Ambient L ₉₀ (dBA)	Nighttime Ambient + Plant L ₉₀ (dBA)	Nighttime Change	Daytime Ambient L ₉₀ (dBA)	Daytime Ambient + Plant L ₉₀ (dBA)	Daytime Change
1. Moylan Lane	33	41	+8	43	45	+2
2. Shoemaker Lane	31	38	+7	39	41	+2
3. Silver Street	38	41	+3	47	48	+1
4. Doane Avenue	31	38	+7	42	43	+1
5. Route 75	40	42	+2	48	48	+0
6. NE property line ⁽¹⁾	—	—	—	43	56	+13
7. SE property line	—	—	—	47	52	+5
8. SW property line	—	—	—	47	53	+6
9. NW property line	—	—	—	46	55	+9

(1) The nighttime levels at the property line locations were not measured as the abutting land use is industrially zoned and there are no residences or noise sensitive receptors nearby.

6. ALTERNATIVE OPERATING SCENARIOS

none

7. EMISSIONS TRADING

A. Intra-facility emission trading

The facility did not request intra-facility emissions trading in its operating permit application.

Pursuant to 310 CMR 7.00: Appendix C(7)(b), emission trades, provided for in this permit, may be implemented provided the Permittee notifies the United States Environmental Protection Agency (EPA) and the MassDEP at least fifteen days in advance of the proposed changes and the Permittee provides the information required in 310 CMR 7.00: Appendix C(7)(b)3.

Any intra-facility change that does not qualify pursuant to 310 CMR 7.00: Appendix C(7)(b)2. is required to be submitted to the MassDEP pursuant to 310 CMR 7.00: Appendix B.

B. Inter-facility emission trading

The Permittee did not request inter-facility emissions trading in its operating permit application.

All increases in emissions due to emission trading must be authorized under the applicable requirements of 310 CMR 7.00: Appendix B (the "Emissions Trading Program") and the 42 U.S.C. §7401 et. seq. (the "Act"), and provided for in this permit.

8. COMPLIANCE SCHEDULE

The Permittee has indicated that the facility is in compliance and shall remain in compliance with the applicable requirements contained in Sections 4 and 5.

In addition, the Permittee shall comply with any applicable requirements that become effective during the permit term.

GENERAL CONDITIONS FOR OPERATING PERMIT

9. FEES

The permittee has paid the permit application processing fee and shall pay the annual compliance fee in accordance with the fee schedule pursuant to 310 CMR 4.00.

10. COMPLIANCE CERTIFICATION

All documents submitted to the MassDEP shall contain certification by the responsible official of truth, accuracy, and completeness. Such certification shall be in compliance with 310 CMR 7.01(2) and contain the following language:

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."

The "Operating Permit Reporting Kit" contains instructions and the Annual Compliance Report and Certification and the Semi-Annual Monitoring Summary Report and Certification. The "Operating Permit Reporting Kit" is available to the Permittee via the MassDEP's web site, <http://www.mass.gov/dep/air/approvals/aqforms.htm#op>.

(a) Annual Compliance Report and Certification

The Responsible Official shall certify, annually for the calendar year, that the facility is in compliance with the requirements of this permit. The report shall be postmarked or delivered by January 30 to the MassDEP and to the Regional Administrator, U.S. Environmental Protection Agency - New England Region. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- i. the terms and conditions of the permit that are the basis of the certification;
- ii. the current compliance status and whether compliance was continuous or intermittent during the reporting period;
- iii. the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
- iv. any additional information required by the MassDEP to determine the compliance status of the source.

(b) Semi-Annual Monitoring Summary Report and Certification

The Responsible Official shall certify, semi-annually on the calendar year, that the facility is in compliance with the requirements of this permit. The report shall be postmarked or delivered by January 30 and July 30 to the MassDEP. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- i. the terms and conditions of the permit that are the basis of the certification;
- ii. the current compliance status during the reporting period;
- iii. the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods;
- iv. whether there were any deviations during the reporting period;
- v. if there are any outstanding deviations at the time of reporting, and the Corrective Action Plan to remedy said deviation;
- vi. whether deviations in the reporting period were previously reported;
- vii. if there are any outstanding deviations at the time of reporting, the proposed date of return to compliance;
- viii. if the deviations in the reporting period have returned to compliance and date of such return to compliance; and
- ix. any additional information required by the MassDEP to determine the compliance status of the source.

11. NONCOMPLIANCE

Any noncompliance with a permit condition constitutes a violation of 310 CMR 7.00: Appendix C and the Clean Air Act, and is grounds for enforcement action, for permit termination or revocation, or for denial of an operating permit renewal application by the MassDEP and/or EPA. Noncompliance may also be grounds for assessment of administrative or civil penalties under M.G.L. c.21A, §16 and 310 CMR 5.00; and civil penalties under M.G.L. c.111, §142A and 142B. This permit does not relieve the permittee from the obligation to comply with any other provisions of 310 CMR 7.00 or the Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this permit.

12. PERMIT SHIELD

- (a) This facility has a permit shield provided that it operates in compliance with the terms and conditions of this permit. Compliance with the terms and conditions of this permit shall be deemed compliance with all applicable requirements specifically identified in Sections 4, 5, 6, and 7, for the emission units as described in the permittee's application and as identified in this permit.

Where there is a conflict between the terms and conditions of this permit and any earlier approval or permit, the terms and conditions of this permit control.

- (b) The MassDEP has determined that the permittee is not currently subject to the requirements listed in Section 4, Table 7.
- (c) Nothing in this permit shall alter or affect the following:
- i. the liability of the source for any violation of applicable requirements prior to or at the time of permit issuance.
 - ii. the applicable requirements of the Acid Rain Program, consistent with 42 U.S.C. §7401, §408(a); or

- iii. the ability of EPA to obtain information under 42 U.S.C. §7401, §114 or §303 of the Act.

13. ENFORCEMENT

The following regulations found at 310 CMR 7.02(8)(h) Table 6 for wood fuel, 7.04(9), 7.05(8), 7.09 (odor), 7.10 (noise), 7.18(1)(b), 7.21, 7.22, 7.70 and any condition(s) designated as "state only" are not federally enforceable because they are not required under the Act or under any of its applicable requirements. These regulations and conditions are not enforceable by the EPA. Citizens may seek equitable or declaratory relief to enforce these regulations and conditions pursuant to Massachusetts General Law Chapter 214, Section 7A

All other terms and conditions contained in this permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the MassDEP, EPA and citizens as defined under the Act.

A Permittee shall not claim as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

14. PERMIT TERM

This permit shall expire on the date specified on the cover page of this permit, which shall not be later than the date 5 years after issuance of this permit.

Permit expiration terminates the permittee's right to operate the facility's emission units, control equipment or associated equipment covered by this permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

15. PERMIT RENEWAL

Upon the MassDEP's receipt of a complete and timely application for renewal, this facility may continue to operate subject to final action by the MassDEP on the renewal application.

In the event the MassDEP has not taken final action on the operating permit renewal application prior to this permit's expiration date, this permit shall remain in effect until the MassDEP takes final action on the renewal application, provided that a timely and complete renewal application has been submitted in accordance with 310 CMR 7.00: Appendix C(13).

16. REOPENING FOR CAUSE

This permit may be modified, revoked, reopened, and reissued, or terminated for cause by the MassDEP and/or EPA. The responsible official of the facility may request that the MassDEP terminate the facility's operating permit for cause. The MassDEP will reopen and amend this permit in accordance with the conditions and procedures under 310 CMR 7.00: Appendix C(14).

The filing of a request by the permittee for an operating permit revision, revocation and reissuance, or termination, or a notification of a planned change or anticipated noncompliance does not stay any operating permit condition.

17. DUTY TO PROVIDE INFORMATION

Upon the MassDEP's written request, the permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall furnish to the MassDEP copies of records that the permittee is required to retain by this permit.

18. DUTY TO SUPPLEMENT

The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a complete renewal application was submitted but prior to release of a draft permit.

The permittee shall promptly, on discovery, report to the MassDEP a material error or omission in any records, reports, plans, or other documents previously provided to the MassDEP.

19. TRANSFER OF OWNERSHIP OR OPERATION

This permit is not transferable by the permittee unless done in accordance with 310 CMR 7.00: Appendix C(8)(a). A change in ownership or operation control is considered an administrative permit amendment if no other change in the permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between current and new permittee, has been submitted to the MassDEP.

20. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

21. INSPECTION AND ENTRY

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized representatives of the MassDEP, and EPA to perform the following:

- (a) enter upon the permittee's premises where an operating permit source activity is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) inspect at reasonable times any facilities, equipment (including monitoring and

control equipment), practices, or operations regulated or required under this permit; and

- (d) Sample or monitor at reasonable times any substances or parameters for the purpose of assuring compliance with the operating permit or applicable requirements as per 310 CMR 7.00 Appendix C(3)(g)(12).

22. PERMIT AVAILABILITY

The permittee shall have available at the facility, at all times, a copy of the materials listed under 310 CMR 7.00: Appendix C(10)(e) and shall provide a copy of the permit, including any amendments or attachments thereto, upon request by the MassDEP or EPA.

23. SEVERABILITY CLAUSE

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

24. EMERGENCY CONDITIONS

The permittee shall be shielded from enforcement action brought for noncompliance with technology based¹ emission limitations specified in this permit as a result of an emergency². In order to use emergency as an affirmative defense to an action brought for noncompliance, the permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (a) an emergency occurred and that the permittee can identify the cause(s) of the emergency;
- (b) the permitted facility was at the time being properly operated;
- (c) during the period of the emergency, the permittee took all reasonable steps as expeditiously as possible, to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and
- (d) the permittee submitted notice of the emergency to the MassDEP within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

¹ Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

² An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.

If an emergency episode requires immediate notification to the Bureau of Waste Site Cleanup/Emergency Response, immediate notification to the appropriate parties should be made as required by law.

25. PERMIT DEVIATION

Deviations are instances where any permit condition is violated and not reported as an emergency pursuant to section 24 of this permit. Reporting a permit deviation is not an affirmative defense for action brought for noncompliance. Any reporting requirements listed in Table 6 of this Operating Permit shall supersede the following deviation reporting requirements, if applicable.

The Permittee shall report to the MassDEP's Regional Bureau of Waste Prevention the following deviations from permit requirements, by telephone or fax, within three (3) days of discovery of such deviation:

- Unpermitted pollutant releases, excess emissions or opacity exceedances measured directly by CEMS/COMS, by EPA reference methods or by other credible evidence, which are ten percent (10%) or more above the emission limit.
- Exceedances of parameter limits established by your Operating Permit or other approvals, where the parameter limit is identified by the permit or approval as surrogate for an emission limit.
- Exceedances of permit operational limitations directly correlated to excess emissions.
- Failure to capture valid emissions or opacity monitoring data or to maintain monitoring equipment as required by statutes, regulations, your Operating Permit, or other approvals.
- Failure to perform QA/QC measures as required by your Operating Permit or other approvals for instruments that directly monitor compliance.

For all other deviations, three (3) day notification is waived and is satisfied by the documentation required in the subsequent Semi-Annual Monitoring Summary and Certification. Instructions and forms for reporting deviations are found in the Massachusetts MassDEP of Environmental Protection Bureau of Waste Prevention Air Operating Permit Reporting Kit, which is available to the Permittee via the MassDEP's web site, <http://www.mass.gov/dep/air/approvals/aqforms.htm#op> .

This report shall include the deviation, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and the corrective actions or preventative measures taken.

Deviations that were reported by telephone or fax within 3 days of discovery, said deviations shall also be submitted in writing via the Operating Permit Deviation Report to the regional Bureau of Waste Prevention within ten (10) days of discovery. For deviations, which do not require 3-day verbal notification, follow-up reporting requirements are satisfied by the documentation required in the aforementioned Semi-Annual Monitoring Summary and Certification.

26. OPERATIONAL FLEXIBILITY

The permittee is allowed to make changes at the facility consistent with 42 U.S.C. §7401, §502(b)(10) not specifically prohibited by the permit and in compliance with all applicable requirements provided the permittee gives the EPA and the MassDEP written notice fifteen days prior to said change; notification is not required for exempt activities listed at 310 CMR 7.00: Appendix C(5)(h) and (i). The notice shall comply with the requirements stated at 310 CMR 7.00: Appendix C(7)(a) and will be appended to the facility's permit. The permit shield allowed for at 310 CMR 7.00: Appendix C(12) shall not apply to these changes.

27. MODIFICATIONS

- (a) Administrative Amendments – The permittee may make changes at the facility which are considered administrative amendments pursuant to 310 CMR 7.00: Appendix C(8)(a)1., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(b).
- (b) Minor Modifications – The permittee may make changes at the facility which are considered minor modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)2., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(d).
- (c) Significant Modifications – The permittee may make changes at the facility which are considered significant modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)3., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(c).
- (d) No permit revision shall be required, under any approved economic incentives program, marketable permits program, emission trading program and other similar programs or processes, for changes that are provided in this operating permit. A revision to the permit is not required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program under Title IV of the Act, provided that such increases do not require an operating permit revision under any other applicable requirement.

28. LEGEND OF ABBREVIATED TERMS IN OPERATING PERMIT

Not all abbreviations are present in every Operating Permit

10 ⁶ Btu/hr	1,000,000 Btu per hour
CEM	continuous emission monitor
CGA	cylinder gas audit
the Chart	the Ringelmann Scale for grading the density of smoke
CO	carbon monoxide
CO ₂	carbon dioxide
COM	continuous opacity monitor
DAS	data acquisition system
EPA or USEPA	Environmental Protection Agency
FMF FAC. NO.	Facility Master File Number
FMF RO NO.	Facility Master File Regulated Object Number
ft ³	cubic feet
HHV	higher heating value
hr	hour
ISO	Represents 59°F, 60% Relative Humidity, 29.92 Inches Mercury At Sea Level
lb	pound
lb/MMBtu	pounds per million British thermal units
MMBtu/hr	million British thermal units per hour
MW	megawatt (1,000,000 watts)
ng	natural gas
NH ₃	ammonia
NO _x	nitrogen oxides
PLT ID	Plant Identification
PM	particulate matter
ppm	parts per million
ppmvd	parts per million (by volume, dry)
PTE	potential to emit
RATA	relative accuracy test audit
SO ₂	sulfur dioxide
tpy	tons per year
VOC	volatile organic compound

APPEAL CONDITIONS FOR OPERATING PERMIT

This permit is an action of the MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing within 21 days of issuance of this permit. In addition, any person who participates in any public participation process required by the Federal Clean Air Act, 42 U.S.C. §7401, §502(b)(6) or under 310 CMR 7.00: Appendix C(6), with respect to the MassDEP's final action on operating permits governing air emissions, and who has standing to sue with respect to the matter pursuant to federal constitutional law, may initiate an adjudicatory hearing pursuant to Chapter 30A, and may obtain judicial review, pursuant to Chapter 30A, of a final decision therein.

If an adjudicatory hearing is requested, the facility must continue to comply with all existing federal and state applicable requirements to which the facility is currently subject, until a final decision is issued in the case or the appeal is withdrawn. During this period, the application shield shall remain in effect, and the facility shall not be in violation of the Act for operating without a permit.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts which are the grounds for the request, and the relief sought. Additionally, the request must state why the permit is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to The Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

The Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

The request will be dismissed if the filing fee is not paid unless the appellant is exempt or granted a waiver as described below.

The filing fee is not required if the appellant is a city or town (or municipal agency) county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

The MassDEP may waive the adjudicatory hearing filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.